



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24777; Directorate Identifier 2006-NE-19-AD; Amendment 39-17809; AD 2014-06-05]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding airworthiness directive (AD) 2007-03-02 for all Rolls-Royce Deutschland (RRD) Tay 620-15, Tay 650-15, and Tay 651-54 turbofan engines. AD 2007-03-02 required an ultrasonic inspection (UI) of low-pressure (LP) compressor fan blades for cracks on certain serial number (S/N) Tay 650-15 engines. AD 2007-03-02 also required, for all Tay 611-8, 620-15, Tay 650-15, and Tay 651-54 engines, initial and repetitive UIs of LP compressor fan blades. AD 2007-03-02 also required, for Tay 650-15 and Tay 651-54 engines, UIs of LP compressor fan blades whenever the blade set is removed from one engine and installed on a different engine. This AD requires additional inspections for the affected engines and removal of the Tay 611-8 engine from the applicability. This AD was prompted by a report of an additional engine failure due to multiple fan blade separation. We are issuing this AD to prevent failure of the LP compressor fan blade, engine failure, and damage to the airplane.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, D-15827 Blankenfelde - Mahlow, Germany; phone: 49 0 33 7086 1200; fax: 49 0 33 7086 1212. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; by searching for and locating Docket No. FAA-2006-24777; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Anthony W. Cerra Jr., Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7128; fax: 781-238-7199; email: anthony.cerra@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2007-03-02, Amendment 39-14913 (72 FR 3936, January 29, 2007), (“AD 2007-03-02”). AD 2007-03-02 applied to all RRD Tay 611-8 and Tay 620-15 turbofan engines with LP compressor module, part number (P/N) M01100AA or P/N M01100AB, installed, and Tay 650-15 and Tay 651-54 turbofan engines with LP compressor module, P/N M01300AA or P/N M01300AB, installed. The NPRM published in the Federal Register on November 29, 2013 (78 FR 71532). The NPRM proposed to require a UI of LP compressor fan blades for cracks on certain S/N Tay 650-15 engines; initial and repetitive UIs of LP compressor fan blades for all Tay 620-15, Tay 650-15, and Tay 651-54 engines; and UIs of LP compressor fan blades whenever the blade set is removed from one engine and installed on a different engine for Tay 650-15 and Tay 651-54 engines. The NPRM also proposed to require additional inspections for the affected engines and removal of the Tay 611-8 engine from the applicability of this AD.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (78 FR 71532, November 29, 2013).

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed.

Costs of Compliance

We estimate that this AD affects about 52 engines installed on airplanes of U.S. registry. We also estimate that it will take about 4 hours per engine to remove and inspect an LP compressor blade set. The average labor rate is \$85 per hour. Prorated parts life

will cost about \$11,750 per engine. Based on these figures, we estimate that the cost of this AD on U.S. operators is \$628,680.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2007-03-02, Amendment 39-14913 (72 FR 3936, January 29, 2007) and adding the following new AD:

2014-06-05 Rolls-Royce Deutschland Ltd & Co KG: (Type Certificate previously held by Rolls-Royce plc) Amendment 39-17809; Docket No. FAA-2006-24777; Directorate Identifier 2006-NE-19-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2007-03-02, Amendment 39-14913 (72 FR 3936, January 29, 2007).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) Tay 620-15 turbofan engines with low-pressure (LP) compressor module, part number (P/N) M01100AA or P/N M01100AB, installed, and Tay 650-15 and Tay 651-54 turbofan engines with LP compressor module, P/N M01300AA or P/N M01300AB, installed.

(d) Unsafe Condition

This AD was prompted by a report of an additional engine failure due to multiple fan blade separation. We are issuing this AD to prevent failure of the LP compressor fan blade, engine failure, and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) For Tay 650-15 and Tay 651-54 engine LP compressor fan blade ultrasonic inspection (UI):

(i) After the effective date of this AD, whenever LP compressor fan blades are removed from an engine, before re-installation on a different engine, inspect the LP compressor fan blades and accomplish a UI of the LP compressor fan blades in accordance with Instruction I of paragraph 3 of RRD Alert Non-Modification Service Bulletin (NMSB) TAY-72-A1442, Revision 6, dated August 26, 2013.

(ii) After the effective date of this AD, during each engine shop visit, before return to service of the engine, inspect the LP compressor fan blades and accomplish a UI of the LP compressor fan blades in accordance with Instruction II of paragraph 3 of RRD Alert NMSB TAY-72-A1442, Revision 6, dated August 26, 2013.

(2) For Tay 620-15 engine LP compressor fan blade UI, after the effective date of this AD, before return to service of an engine after every mid-life, or every calendar-life, or every overhaul shop visit, inspect the LP compressor fan blades and accomplish a UI

of the LP compressor fan blades in accordance with Instruction II of paragraph 3 of RRD Alert NMSB TAY-72-A1442, Revision 6, dated August 26, 2013.

(3) For Tay 620-15, Tay 650-15, and Tay 651-54 engine LP compressor fan blade and rotor disk replacement, if during any inspection required by paragraph (e)(1) or (e)(2) of this AD, any LP compressor fan blade is found cracked, before next flight or return to service of the engine, replace the complete set of the LP compressor fan blades and the LP compressor rotor disk.

(f) Credit for Previous Actions

If, before the effective date of this AD, you inspected or replaced any Tay 620-15, Tay 650-15, or Tay 651-54 turbofan engine LP compressor fan blade or rotor disk assembly using RRD Alert NMSB TAY-72-A1442, Revision 5, dated May 31, 2013, or earlier, you have satisfied the requirements of paragraphs (e)(1) through (e)(3) of this AD.

(g) Definitions

For the purposes of this AD for Tay 620-15 engines:

(1) A mid-life shop visit is an engine shop visit accomplished before accumulating 12,000 engine flight cycles since new (FCSN) or flight cycles (FC) since last engine mid-life shop visit;

(2) A calendar-life shop visit is an engine shop visit accomplished within 10 years since new or since the last engine calendar-life shop visit; and

(3) An overhaul shop visit is an engine shop visit accomplished before accumulating 22,000 engine FCSN or FC since the last engine overhaul shop visit.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Anthony W. Cerra Jr., Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7128; fax: 781-238-7199; email: anthony.cerra@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency, AD 2013-151R2, dated September 2, 2013, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2006-24777-0012>.

(3) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Rolls-Royce Deutschland Ltd & Co KG Alert Non-Modification Service Bulletin No. TAY-72-A1442, Revision 6, dated August 26, 2013.

(ii) Reserved.

(3) For RRD service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, D-15827 Blankenfelde - Mahlow, Germany; phone: 49 0 33 7086 1200; fax: 49 0 33 7086 1212.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on March 18, 2014.

Ann C. Mollica,
Acting Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2014-06632 Filed 04/02/2014 at 8:45 am; Publication Date: 04/03/2014]